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EXAMINER

NGUYEN, PHUONGCHAU BA

ART UNIT	PAPER NUMBER
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2665

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DATE MAILED: 08/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/049,288

Applicant(s)

COUTURE, LOUIS

Examiner

Phuongchau Ba Nguyen

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3-27-03 RCE.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-140 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) See Continuation Sheet is/are rejected.
- 7) ☒ Claim(s) See Continuation Sheet is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>19</u> . | 6) <input type="checkbox"/> Other: _____ |

Continuation of Disposition of Claims: Claims rejected are 1,4-7,14-21,25-26, 29-30,35-39,41,44-4549-52,54-57,61-72,76-83,90-93,95-106,108-138.

Continuation of Disposition of Claims: Claims objected to are 2,3,8-13,22-24,27,28,31-34,40,42,43,46-48,53,58-60,73-75,84,85,87-89,94,107,108,139 and 140.

Claim Objections

1. Claims 31–32, 70, 73, 83 are objected to because of the following informalities:

“(claims 31, 70, 73, and claim 83 in line 9) should be deleted because following after should be a list of items/steps which are not found in claims 31, 70, 73 and 83.

After the word “which”, “the”(claim 32, line 5) should be deleted to avoid duplication.

Appropriate correction is required.

Claim Rejections – 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1, 25, 41, 54, 115 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding

the method claimed, claim 1 is vague and indefinite because claim 1 is not clear what is to be processed by one of the plurality of DSPs in line 7 of claim 1, line 10 of claim 25, line 13 of claim 41, line 7 of claim 54, line 11 of claim 115.

Claim Rejections – 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is

determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1, 6, 17, 19, 25-26, 41, 54, 69, 83, 90, 103-104, 115, 120, 129-130 are rejected under 35 U.S.C. 102(e) as being anticipated by Macrae (6,052,154).

Regarding claims 1, 19, 25, 41, 54, 69, 83, 90, 115, 129-130:

Macrae (6,052,154) discloses a method for supporting digital signal processing (DSP) of a plurality of data types, the method comprising:

continuously broadcasting a plurality of firmware algorithms toward a plurality of DSPs {col.2, lines 11-23}

selectively monitoring for and receiving at least one firmware algorithm of the plurality of firmware algorithms in response to a determination of a data type the one of the plurality of DSPs is to process {col.2, lines 33-37}

processing data with the at least one firmware algorithm and the one DSP, the data being of the data type, the processing to process the data as it travels between networks {col.2, lines 33-37; fig.9}.

Regarding claims 6, 17, 26:

Macrae further discloses wherein the plurality of firmware algorithms are continuously broadcasted toward the plurality of DSPS (user terminals, settops) by a master DSP engine (broadcast computer 10, figs.1 & 9) that is implemented with a processor {claim 6}; wherein the plurality of firmware algorithms are stored in a memory (databases) of the master DSP engine (fig.1){claim 17};

Regarding claims 103, 104:

Macrae further discloses detecting a change in the type of data that the DSP is to process (claim 103); selecting a new firmware routine from the Plurality of broadcasted firmware routines in response to the detecting a change (claim 104){figs.9, 16–20 wherein the user selecting a broadcast program for recording}.

Regarding claim 120:

Macrae further discloses wherein said processor is a host CPU (36, fig.3).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 20, 36, 49, 57, 61-63, 72, 76-78, 93, 95-97, 110 and 138 are rejected under 35 U.S.C. 103(a) as being unpatentable over Macrae.

Regarding claims 20, 36, 49, 57, 61-63, 72, 76-78, 93, 95-97, 110 and 138:

Macrae discloses broadcasting video data. Although Macrae does not specify that wireless traffic can comprise data, voice data, audio data and facsimile data, such data types are considered old and well known in the art of wireless communications for the purpose of supporting various communication needs. Thus, it would have been obvious to one skilled in the art to provide Macrae's system with traffic comprising data, voice data, audio data, video data and facsimile data with the motivation being to support various communication needs.

8. Claims 4-5, 7, 14-16, 18, 21, 29-30, 35, 37-39, 44-45, 50-52, 55-56, 70-71, 91-92, 107, 109, 111-114, 116-119, 121 are rejected under 35 U.S.C. 103(a) as being unpatentable over Macrae in view of Kaewell (USP 5,436,955).
Regarding claims 4-5, 7, 14-16, 18, 21, 29-30, 35, 37-39, 44-45, 50-52, 55-56, 70-71, 91-92, 107, 109, 111-114, 116-119, 121:

Macrae does not explicitly disclose the claimed features. However, in the same field of endeavor, Kaewell (USP 5,436,955) further discloses that the channel unit having the DSP engine which is configured as analog or digital channel unit is capable of communicating bidirectionally with the local telephone company central office in PCM format (see col. 2, line 62 to col. 3, line 8) {claims 4, 29, 44 and 116}; bidirectional host bus is depicted in figure 3 {claims 5, 30 and 45}; each TI voice channel carries traffic (DSP firmware) to one RAM for one DSP (see col. 3, lines 52-68) {claims 7, 14-16, 21, 38-39 and 51-52, 117, 119, 121}; each DSP engine handles at least one channel {claims 18, 37, 50 and 118}; figure 1 shows the interconnection between the mobile switching center and the PSTN from which multiplexed data would be

transmitted to the base station via the mobile switching center {claims 35, 55–56, 70–71, 91–92, 107, 109, 111–114}. Therefore, it would have been obvious to an artisan to apply Kawell's teaching to Macrae's system with the motivation being to allow the base station to provide service to both analog and digital mode subscribers on the same system hardware.

9. Claims 105–106 are rejected under 35 U.S.C. 103(a) as being unpatentable over Macrae in view Pyle (5,467,286).

Regarding claims 105–106:

Macrae does not explicitly disclose the claimed inventions. However, in the same field of endeavor, Pyle (5,467,286) discloses replacing the firmware routine with the new firmware routine in a memory that is accessible to the DSP (claim 105); processing data having the new data type by executing the new firmware routine with the DSP (claim 106){col.2, lines 29–37}. Therefore, it would have been obvious to an artisan to apply Pyle's teaching to Macrae's system with the motivation being to provide user's device with main

functionality firmware which can be updated over a multi-drop or network communication link without removing the user's device from service.

10. Claims 64-68, 79-82, 98-102, 122-128, 131-137 rejected under 35 U.S.C. 103(a) as being unpatentable over Macrae in view Neubauer (6,269,095).

Regarding claims 64-68, 79-82, 98-102, 122-128, 131-137:

Macrae does not explicitly disclose the processing comprising echo cancellation, voice coding, modem relay, facsimile relay.

Neubauer (6,269,095) discloses in figure 1 a gateway comprising a host computer 1006, voice payload data processing unit 1008, wherein a voice payload data processing unit 1008 comprises a plurality of digital signal processors DSP, wherein one DSP handles the call processing (e.g., real-time vocoding, silence suppression, echo cancellation, μ -law/a-law conversion, etc.), and the host computer 1006 (modem/facsimile relay) includes a conversion unit 1006a and a fax processing unit 1006 for supporting voice and fax operations {col.1, lines 21-43}. Therefore, it would have been obvious to a skilled artisan to provide Kaewell's system with the DSP handling the call

processing (e.g., real-time vocoding, silence suppression, echo cancellation and the motivation being to support various communications needs {figs. 1-2, 4, 6}.

Allowable Subject Matter

11. Claims 2-3, 8-13, 22-24, 27-28, 31-34, 40, 42-43, 46-48, 53, 58-60, 73-75, 84-85, 87-89, 94, 107-108, 139-140 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

12. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchau Ba Nguyen whose

Application/Control Number: 09/049,288
Art Unit: 2665

Page 11

telephone number is 703-305-0093. The examiner can normally be reached on Monday-Friday from 10:00 a.m. to 3:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 703-308-6602. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.



Phuongchau Ba Nguyen
Examiner
Art Unit 2665

August 11, 2003

